CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Currently Amended) An electronic device containing a thienylene-arylene polymer comprised consisting of a repeating segment containing at least one two 2,5-thienylene units of (I) or (II), and at least one arylene unit of (IIIa), (IIIb), or (IIIc)

wherein each R is independently an alkyl or an alkoxy side chain; R' is halogen, alkyl, or alkoxy, and a and b represents the number of R groups and a is 2, and wherein the number of said arylene units (IIIa), (IIIb), and (IIIc) is from about 1 to about 3.

2. (Currently Amended) A device in accordance with **claim 1** wherein each R contains from about 1 to about 25 carbon atoms; R' is alkyl or alkoxy containing from about 1 to about 30 atoms, and wherein the number of 2,5-thienylene (I) and R'-substituted 2,5-thienylene units (II) in the repeating segment are each independently from 0 to about 10, provided at least one of said units (I) or (II) is present.

3. (Cancelled).

- 4. (Original) A device in accordance with **claim 1** wherein R is alkyl or alkoxy selected from the group consisting of pentyl, pentyloxy, hexyl, hexyloxy, heptyl, heptyloxy, octyl, octyloxy, nonyl, nonyloxy, decyl, decyloxy, undecyl, undecyloxy, dodecyl, dodecyloxy, tridecyl, tridecyloxy, tetradecyl, tetradecyloxy, pentadecyl, and pentadecyloxy.
 - 5. (Cancelled).
 - 6. (Cancelled).
 - 7. (Cancelled).
- 8. (Original) A device in accordance with **claim 7** wherein dialkoxyphenylene is selected from the group consisting of bis(pentyloxy)phenylene, bis(hexyloxy)phenylene, bis(heptyloxy)phenylene, bis(nonyloxy)phenylene, bis(undecyloxy)phenylene, bis(dodecyloxy) phenylene, bis(tridecyloxy)phenylene, bis(tridecyloxy)phenylene, bis(tetradecyloxy)phenylene, and bis(pentadecyloxy)phenylene.
 - 9. (Cancelled).
 - 10. (Cancelled).
- 11. (Original) A thin film transistor comprised of a substrate, a gate electrode, a gate dielectric layer, a source electrode and a drain electrode, and a semiconductor layer comprised of the thienylene-arylene polymer of claim 1.

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- 12. (Currently Amended) A thin film transistor in accordance with **claim 11** wherein R is alkyl-or-alkoxy containing from about 5 to about 25 carbon atoms, and R' is alkyl or alkoxy containing from 1 to about 25 carbon atoms.
 - 13. (Cancelled).
 - 14. (Cancelled).
 - 15. (Cancelled).
- (Currently Amended) A thin film transistor in accordance with claim 45 16. 11 wherein said dialkylphenylene or dialkoxyphenylene is selected from the group dipentylphenylene, dihexylphenylene, diheptylphenylene, of consisting bis(undecyl)phenylene, bis(dodecyl)phenylene, dinonylphenylene, bis(tridecyl)phenylene, bis(tetradecyl)phenylene, bis(pentadecyl)phenylene, bis(heptyloxy)phenylene, bis(hexyloxy)phenylene, bis(pentyloxy)phenylene, bis(dodecyloxy) phenylene, bis(undecyloxy)phenylene, bis(nonyloxy)phenylene, bis(tetradecyloxy)phenylene, and bis(tridecyloxy)phenylene, bis(pentadecyloxy)phenylene.
 - 17. (Cancelled).
 - 18. (Cancelled).
 - 19. (Cancelled).
 - 20. (Cancelled).

21. (Original) A thin film transistor in accordance with claim 17 comprised of a substrate, a gate electrode, a gate dielectric layer, a source electrode, a drain electrode, and a semiconductor layer comprised of a polymer wherein said polymer (IV-a) or (IV-b) is selected from a thienylene-arylene semiconductor polymer (1) through (20) (5)

(1)
$$(1)$$

$$(1)$$

$$(1)$$

$$(1)$$

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$$(2)$$

$$(3)$$

$$(3)$$

$$(1)$$

$$(3)$$

$$(4)$$

$$(4)$$

$$(4)$$

$$(3)$$

(5) <u>(4)</u>

$$\begin{array}{c|c} S & OC_{12}H_{23} \\ \hline \\ H_{23}C_{12}O & S \end{array} \right]_n$$

(6) <u>(5)</u>

(7)

(8)

$$C_{10}H_{21}$$
 $OC_{10}H_{21}$ S S $N_{21}C_{10}O$ $OC_{10}H_{21}$ OC_{1

(9)

(10) CH₃ OC₈H₁₇

S S N

H₁₇C₈O CH₃

(11)

$$CH_3$$
 $OC_{10}H_{21}$ S S S $H_{21}C_{10}O$ CH_3

(12)

$$\begin{array}{c|c} S & \begin{array}{c} C_6H_{13} \\ \hline \\ S & \end{array} \\ H_{13}C_6 \end{array}$$

(13)

$$\begin{array}{c|c} S & & \\ \hline & S & \\ \hline & & S & \\ \hline & & & \\ H_{17}C_8 & & \\ \end{array}$$

(14)

(15)

$$C_{10}H_{21}$$
 $C_{10}H_{21}$
 $C_{10}H_{21}$

(16)

$$C_{12}H_{23}$$
 $C_{12}H_{23}$
 $C_{12}H_{23}$

(17)

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wherein n is from about 5 to about 500.

- 22. (Cancelled).
- 23. (Cancelled).
- 24. (Cancelled).
- 25. (Cancelled).
- 26. (Cancelled).
- 27. (Cancelled).
- 28. (Cancelled).
- 29. (Cancelled).
- 30. (Cancelled).
- 31. (Cancelled).
- 32. (Cancelled).
- 33. (Cancelled).
- 34. (Cancelled).
- 35. (Cancelled).
- 36. (Cancelled).
- 37. (Cancelled).
- 38. (Cancelled).

- 39. (Cancelled).
- 40. (Cancelled).
- 41. (Cancelled).
- 42. (Cancelled).
- 43. (Cancelled).
- 44. (Cancelled).
- 45. (Cancelled).
- 46. (Currently Amended) An electronic device containing a thienylenearylene polymer comprised consisting of a repeating segment containing at least one 2,5-thienylene segment and at least one arylene segment, wherein the number of said arylene segments is from about 1 to about 3.
- 47. (Previously Presented) The electronic device of **claim 46** wherein the 2,5-thienylene segment comprises at least one 2,5-thienylene unit of (I) or (II)

wherein R' is halogen, alkyl, or alkoxy.

48. (Previously Presented) The electronic device of claim 46 wherein the arylene segment comprises at least one arylene unit of (IIIa), (IIIb), or (IIIc)

wherein each R is independently an alkyl or an alkoxy side chain; and a and b represent the number of R groups, and wherein the number of said arylene units (IIIa), (IIIb), and (IIIc) is from about 1 to about 3.